

**PART 1      GENERAL**

**1.1      RELATED WORK**

- .1      Section 01 74 21 – Construction/Demolition Waste Management and Disposal.

**1.2      DEFINITIONS**

- .1      Hazardous Materials: Product, substance or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals or plant life when released in to the environment.

**1.3      FIRES**

- .1      Fires and burning of rubbish on site not permitted.

**1.4      DISPOSAL OF WASTES AND HAZARDOUS MATERIALS**

- .1      Do not bury rubbish and waste materials on site. Dispose at approved landfill sites as specified in Section 01 74 21.
- .2      Do not dispose of hazardous waste or volatile materials such as mineral spirits, painter thinner, oil or fuel into waterways, storm or sanitary sewers or waste landfill sites.
- .3      Store, handle and dispose of hazardous materials and hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.
- .4      Dispose of construction waste materials and demolition debris, resulting from work, at approved landfill sites only. Carry out such disposal in strict accordance with provincial and municipal rules and regulations. Separate out and prevent improper disposal of items banned from landfills.
- .5      Establish methods and undertake construction practices which will minimize waste and optimize use of construction materials. Separate at source all construction waste materials, demolition debris and product packaging and delivery containers into various recycling abilities of various materials and avoid disposal of debris at landfill site in a “mixed state”. Where recycling firms specializing in recycling of specific materials exist, transport such materials to the recycling facility and avoid disposal at landfill sites.
- .6      Communicate with landfill operator prior to commencement of work, to determine what specific construction, demolition and renovation waste materials have been banned from disposal at the landfill and at transfer stations.

**1.5      DRAINAGE**

- .1      Provide temporary drainage and pumping as necessary to keep excavations and site free from water.

- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance in accordance with governing regulations and requirements.
- .4 Pumped water must meet applicable federal, provincial and municipal standards before it can be discharged to a surface water body. If regulatory guidelines exceedances are noted, the Departmental Representative has the right to issue stop pumping instructions to the Contractor. Contractor will not be compensated for any delays associated with retrofitting equipment to meet guidelines.
- .5 Provide control devices as filter fabrics, sediment traps and settling ponds to control drainage and prevent erosion of adjacent lands. Maintain in good order for duration of work.

#### **1.6 PERMITS**

- .1 All guidelines and instructions stated on permits must be strictly adhered to.

#### **1.7 WORK ADJACENT TO WATERWAYS**

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 At borrow sites, design and construct temporary crossings to minimize erosion to waterways in strict conformance with provincial and federal environmental regulations.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .7 Do not blast within 100m of spawning beds.
- .8 Do not refuel any type of equipment within 100m of a water body. Maintain equipment in good working condition with no fluid leaks, loose hoses or fittings.

#### **1.8 POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities' emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.

- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads and around entire construction site.
- .5 Maintain inventory of hazardous materials and hazardous waste stored on site. List items by product name, quantity and date when storage began.
- .6 Have emergency spill response equipment and rapid clean-up kit, appropriate to work, at site. Locate adjacent to work and where hazardous materials are stored. Provide personal protective equipment as required for clean-up.
- .7 Report, to Federal and Provincial Department of the Environment, spills of petroleum and other hazardous materials as well as accidents having potential of polluting the environment. Also notify Departmental Representative and submit a written spill report to Departmental Representative within 24 hours of occurrence.
- .8 Provide a floating debris containment boom whenever any of the Contractors methods of work allow for the potential of floating debris

## **1.9 WILDLIFE PROTECTION**

- .1 Should nests of migratory birds in wetlands be encountered during work, immediately notify Departmental Representative for directives to be followed.
  - .1 Do not disturb nest site and neighbouring vegetation until nesting is completed.
  - .2 Minimize work immediately adjacent to such areas until nesting is completed.
  - .3 Protect these areas by following recommendations of Canadian Wildlife Service.

## **1.10 REFUELING**

- .1 Refueling of equipment to be performed in locations as directed by Departmental Representative.
- .2 Do not refuel equipment within 100 metres of any watercourse or storm water catch basin unless protection against spills is in place and location is approved by Departmental Representative.
- .3 Use petroleum containers approved for products with no spill fill spouts for dispensing fuels. The sure pour nozzle to have self closing valve, prevent any flow of fuel until the nozzle is inserted into the receiving container. On removal from the receiving container the slide valve closes to eliminate any fuel spill. Nozzle to be equipped with its own automatic vent eliminating the need for the user to open or close air inlets on the pouring container.
- .4 Nozzle to support the weight of the pouring container. Nozzles to automatically stop the flow when the receiving container becomes full. The nozzle to be such that it reduces evaporative losses of volatile organic compounds during the fuel transfer.

- .5 All spills of hydrocarbon based products such as gasoline, kerosene, naphtha, lubricating oils, engine oils, greases and de-icing fluids or antifreeze no matter how large or small to be reported to Departmental Representative.
- .6 Oil changes or equipment repairs in the field are not permitted.
- .7 Refueling to be performed on level surfaces, PCC Portland cement concrete or HMAC surfaces when approved by the Departmental Representative unless otherwise directed.
- .8 Contractor to have drip pans sized for amounts of product to be recovered and customized to fit under pieces of equipment to perform routine maintenance to equipment while maintaining equipment on property. Drip Pans to be used whenever leaving equipment on site or parking overnight when not in use.
- .9 Parking of equipment on site to be on level ground in locations away from watercourses and as approved by Departmental Representative. Equipment with leaks or poor mechanical repair to be removed from site when so ordered by Departmental Representative.

**1.11 SPILL CONTROL KIT**

- .1 Contractor to have at the work site a spill control kit consisting of the following minimum types of equipment:
  - .1 a spaded shovel;
  - .2 a stable broom;
  - .3 a broad nosed shovel;
  - .4 a container(s) suitable, compatible to and of sufficient size to contain petroleum products being used with equipment;
  - .5 Absorbents;
  - .6 rags;
  - .7 metal container for soiled rags;
  - .8 Booms when working next to a watercourse that will traverse the width of the watercourse by two times; and
  - .9 Spill control kit to be inspected and approved prior to Work commencing. Spill control kits to be available to Contractor employees at all areas where Work of the Contract is being performed and at all times during the course of the Contract.
  - .10 Contractor employees to be trained in the use of the spill control kit and the equipment they contain.

**1.12 SPILLS**

- .1 Disposal of spilled materials to be off work site property and at approved locations for materials to be disposed of.

- .2 When parking of equipment on site, the equipment is to be secured from entry, inspected for leaks and the ground protected from leaks.
- .3 Contractor to protect all wells, catch basins, drywells, drains and watercourses from contamination in event of a spill.
- .4 All equipment to be used for the Work of the Contract to be inspected by the Departmental Representative for leaks. Equipment not in good repair to be removed/repared when directed by Departmental Representative.
- .5 Spills in excess of 74 litres to be reported immediately to Departmental Representative and the Newfoundland and Labrador Department of Municipal Affairs and Environment and all other governing bodies.
- .6 For spills occurring the Contractor to immediately remove as much or all of the contaminated soils created by the spill from Work of the Contractor as possible.
- .7 Contaminated soils/materials to be placed in containers compatible to the contaminants.
- .8 Any remaining clean-up to be performed at no extra cost to Canada. Clean-ups to be to the Departmental Representative's satisfaction.

#### **1.13 TRANSPORTATION**

- .1 Transport hazardous materials and hazardous waste in compliance with Federal Transportation of Dangerous Goods Act.
- .2 Do not overload trucks when hauling material. Secure contents against spillage.
- .3 Maintain trucks clean and free of mud, dirt and other foreign matter.
- .4 Avoid potential release of contents and of any foreign matter onto highways, roads and access routes used for the Work. Take extra care when hauling excavated material and other hazardous materials. Immediately clean any spillage and soils.
- .5 Before commencement of work, advise the Departmental Representative of the existing roads and temporary routes proposed to be used to access work areas and to haul material to and from site.

#### **1.14 DISPOSAL OF EXCAVATED MATERIAL**

- .1 Eliminate free board spillage when excavating, loading and hauling excavated material.
- .2 Do not overload trucks when hauling excavated material or other hazardous material. Secure contents against spillage. Clean ground spills to extent as directed by authority having jurisdiction and by Departmental Representative.
- .3 Obtain approval from Departmental Representative of the proposed route to be used to haul excavated material to the approved disposal site.

- .4 Place and spread excavated material at the approved disposal site in a uniform and well graded manner. Minimize height and slopes of the disposed material. Match slopes and contours of the existing surrounding terrain as much as possible following grades as directed by the approved disposal site.
- .5 Control disposal and runoff of water containing suspended materials or other harmful substances in accordance with requirements of authority having jurisdiction.
- .6 Suction Excavation:
  - .1 Routinely inspect pipe for any potential breach in the sediment train and keep in good leak free condition at all time.
  - .2 Should leakage occur along the pipeline, immediately cease excavating operations and repair leak.

#### **1.15 WATER QUALITY**

- .1 Conduct excavation work of a watercourse or wetland in such a manner to limit turbidity and reduce sediment suspension in the water to an absolute minimum at all times.
  - .1 Maintain appropriate production speed and momentum of the excavation equipment. Make adjustments as required and as approved by Departmental Representative.
  - .2 Strategically position excavator equipment and haul vehicles to avoid over the water swings of excavated material whenever possible.
- .2 Where work may affect the water quality adjacent to water intake lines used by Lobster Holding Facilities, Fish Processing Facilities and other harbour users, schedule work in cooperation with the Harbour Authority as directed by Departmental Representative to minimize interference and impact to harbour users.
- .3 Visually monitor the water turbidity of the surrounding areas adjacent to the work.
  - .1 Should excessive change occur in the turbidity beyond the excavated limit which differs from existing conditions of the surrounding water bodies, such as a distinct colour difference; notify the Departmental Representative to obtain appropriate mitigation measures to be followed.

#### **1.16 BLASTING**

- .1 Develop a Blasting Plan for any blasting required in the Work identifying measures employed to minimize the impact on fish, mammals, water quality and the environment.
- .2 Blasting Plan shall include the following minimum requirements:
  - .1 Predictive analysis conducted to assess the zone of influence of the blasting activities.
  - .2 Ensure that fish and mammals are scared away from the blasting area by use of boat, pre-blasting caps or by other means.

- .3 Make use of shock wave padding (bubble curtain or air curtain) to minimize the transmission of the blast through the water.
- .4 The number and magnitude of explosives used is kept to an absolute minimum as required for the Work.
- .3 Submit Blasting Plan to Departmental Representative for review prior to the commencement of any blasting.
- .4 Obtain required permit required by authority having jurisdiction.

**1.17 NOTIFICATION**

- .1 Departmental Representative will notify Contractor in writing of observed non-compliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of environmental protection. Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action as approved by Departmental Representative.
- .2 Departmental Representative may issue stop order of work until satisfactory corrective action has been taken.
- .3 No time extensions will be granted or equitable adjustments allowed to Contractor for such suspensions.

**1.18 MEASUREMENT FOR PAYMENT**

- .1 No separate measurement for payment shall be made for items under this section. Include costs for Environmental Procedures in the lump sum price arrangement.

**END OF SECTION**